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In memoriam

Günter Meinardus (1926–2007)

Professor Dr. Günter Meinardus died on June 11, 2007. He was a member of the editorial board of the *Journal of Approximation Theory* from the beginning, a reflection of his many contributions to approximation theory and related fields. In 1953, he finished his dissertation "Über das Partitionenproblem eines reellquadratischen Zahlkörpers" under the supervision of Carl Ludwig Siegel at the University of Göttingen, and received his habilitation in 1959 at the University of Hamburg. He held chairs at the Universities of Clausthal, Erlangen-Nürnberg, Siegen, and Mannheim.

His achievements in approximation theory include the following. He developed a theory of nonlinear approximation, motivated by concrete applications. By applying the theory to best approximation by rational functions and exponential sums, complete results were obtained. The basic principles had a great influence on the development of nonlinear approximation, in particular as concerns splines with free knots.

In his contributions to the theory of splines, Meinardus derived sharp estimates for the norm of interpolation operators, developed a complex integral representation of B-splines and proved the uniqueness of best L^1-approximations from periodic spline spaces.

Segment approximation is regarded as a very difficult and highly nonlinear problem. Meinardus developed efficient algorithms for computing segment approximations with applications to splines with free knots. It is remarkable that, in addition to the univariate case,

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also bivariate segment approximation problems were investigated. Some of the above results were obtained in cooperation with G. Merz, G. Nürnberger, A.R. Reddy, M. Sommer, H. Strauss, D. Schwedt, G.D. Taylor, R.S. Varga and G. Walz.

Günter Meinardus wrote the influential book "Approximation of Functions: Theory and Numerical Methods", published by Springer in 1967. He organized, jointly with K. Böhmer, L. Collatz, G. Nürnberger, W. Schempp, and H. Werner, numerous international conferences. His scientific work is highly regarded. He was elected a member of the Leopoldina (the National Academy of Germany).

A list of the students (and even the students' students) of Günter Meinardus can be found at the web site http://www.genealogy.math.ndsu.nodak.edu/ of the Mathematics Genealogy Project. It is as complete as we were able to make it.

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